

**Alcohol & Other Drug Abuse (AODA) Members With a Psychiatric
Comorbidity, Wisconsin Partnership Program: Prevalence and
Utilization of Health Care and Staff Resources
March 25, 2004**

The Wisconsin Partnership Program was awarded a Medicare/Medicaid Integration Program Grant for research and replication of the Wisconsin Partnership Program and to provide technical assistance and research funds for quality improvement studies. One of the questions answered as a result of this award is:

Is there a measurable difference on overall program costs between members with and without AODA issues?

The population in this study included all of the 1,178 Partnership members who were enrolled as of October 2002. Staff extracted diagnoses from claims data and worked with the Partnership staff to assign members to one of four AODA groups—those with an AODA diagnosis, in recovery, “suspected” users, and those without AODA issues. There were significant differences in utilization:

- a) The likelihood of any hospitalization occurring during the time period was statistically significantly higher for those with an AODA diagnosis than those without;
- b) The diagnosed AODA group averaged 5,512 hospital days per 1,000 people per year (days per 1,000) compared to 3,340 days per 1,000 for those without an AODA diagnosis;
- c) The diagnosed AODA group averaged 62,047 nursing home days per 1,000 compared to 17,266 days per 1,000 for those without an AODA diagnosis;
- d) The diagnosed AODA group had significantly more missed appointments, and used more staff resources than the other study groups;
- e) The in recovery and the “suspected” users experienced greater utilization of inpatient care than those without an AODA diagnosis.

During this study it was noted that almost half of Partnership members had a psychiatric diagnosis. Since the proportion of members with a psychiatric condition was so high, staff questioned what impact a psychiatric condition would have on the use of inpatient hospital care. To test this effect, staff categorized the same 1,178 members from the first study into one of three groups based on the member’s diagnosis:

- 1) Serious Mental Health Diagnosis: Includes personality disorders, schizophrenia, bipolar, psychotic and major depressive disorders;
- 2) Mental Health Diagnosis: Includes depressive, neurotic and anxiety disorders, and
- 3) No Mental Health Diagnosis.

When people had several psychiatric conditions, they were assigned the most “serious” of the groupings. Table 1 shows the incidence of AODA and psychiatric conditions by number and percentage for the study cohort.

Table 1: Incidence of Mental Health & AODA Diagnoses

Groups	Serious Mental Health Diagnosis	Mental Health Diagnosis	No Mental Health Diagnosis
AODA Diagnosis	48 4.1%	35 3.0%	79 6.7%
AODA Suspected or In Recovery	32 2.7%	30 2.5%	79 6.7%
No AODA Diagnosis	146 12.4%	253 21.5%	555 47.1%

Several of the above nine groupings were too small for meaningful analysis between groups. Thus, Table 2 assigns people into groups simply by the presence or absence of a psychiatric or AODA diagnosis.

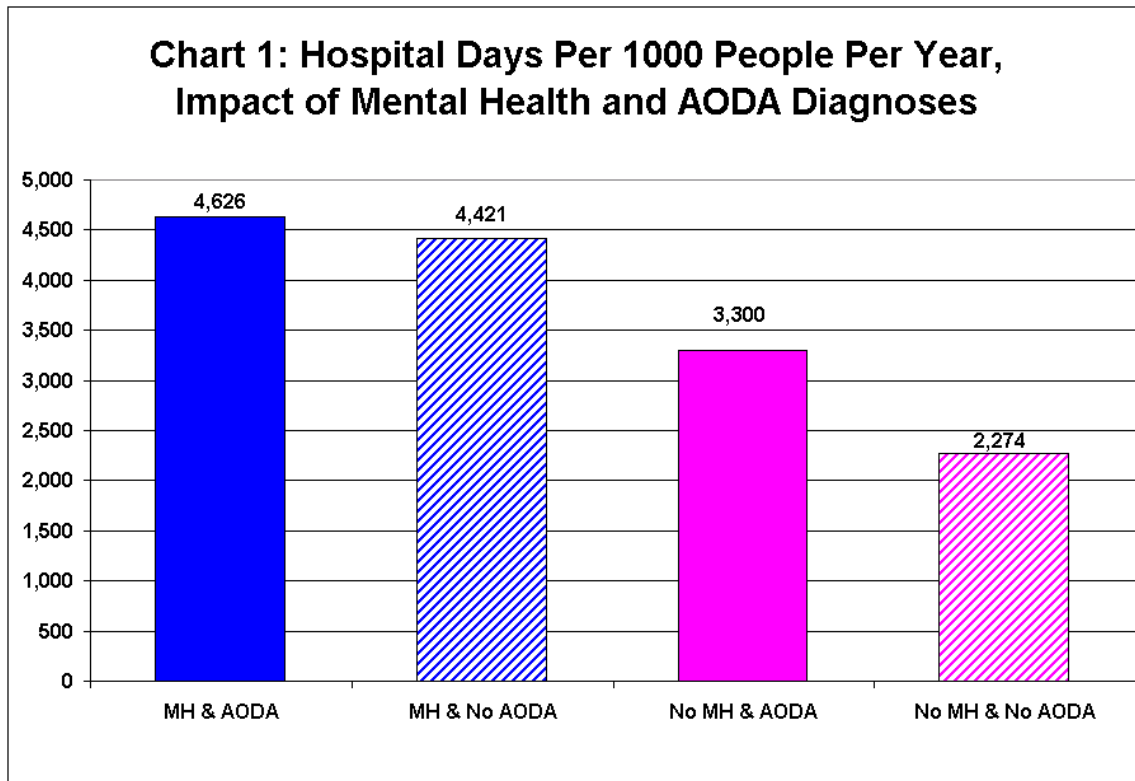
Table 2: Presence & Absence of a Psychiatric & AODA Diagnosis

Groups	Any Mental Health Diagnosis	No Mental Health Diagnosis
AODA Diagnosis, Suspected, & Recovery	145 12.3%	79 6.7%
No AODA Diagnosis	399 33.9%	555 47.1%

The first study showed a significantly higher use of inpatient and nursing home care by the members who had an active AODA diagnosis. Those in recovery and suspected also used more health care resources. This follow up study focuses on the effect of a comorbid psychiatric condition. Table 3 and Chart 1 show that the highest hospitalization rate occurred with people who had both a psychiatric and an AODA diagnosis. Interestingly, the next highest utilization group occurred for people with a psychiatric diagnosis but without an AODA diagnosis. The group with the lowest hospital utilization had neither a psychiatric or AODA diagnosis. This follow up study indicates that a psychiatric diagnosis has more impact on hospital utilization than an AODA diagnosis.

Table 3: Hospital Days Per Thousand By Comorbidity Group

Groups	Any Mental Health Diagnosis	No Mental Health Diagnosis
AODA Diagnosis, Suspected, & Recovery	4,626	3,300
No AODA Diagnosis	4,421	2,274



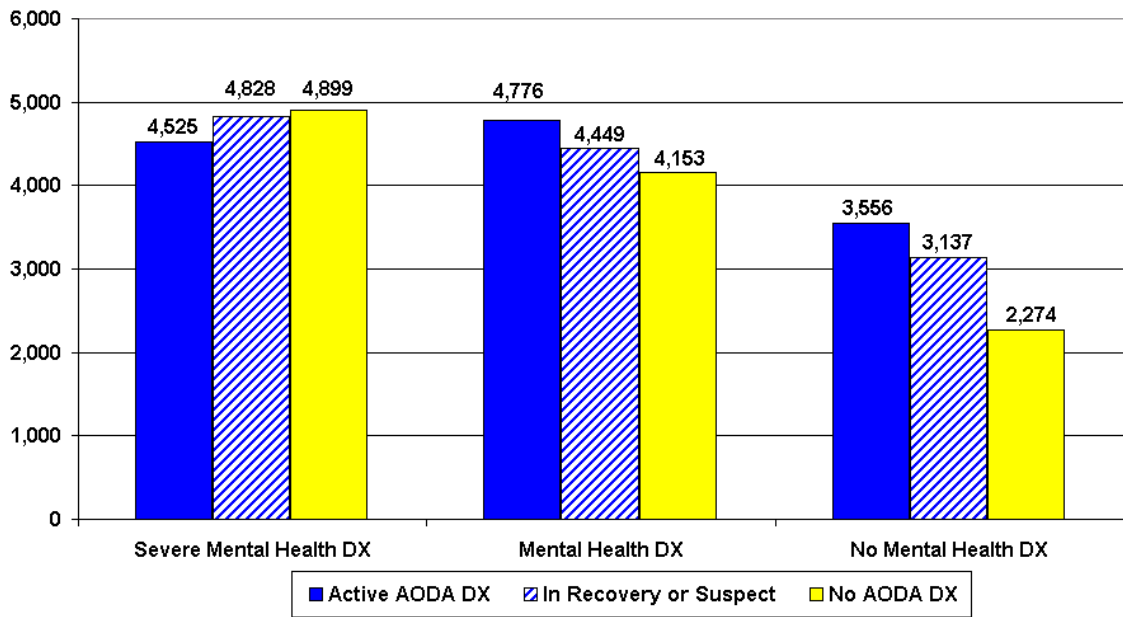
Charts 2 and 3 array the hospital utilization by greater detail of the intensity of the mental health diagnosis and the current abuse status of the AODA diagnosis. The utilization pattern is consistent. Charts 2 and 3 show that the presence of any mental health diagnosis results in higher inpatient utilization irrespective of the AODA diagnosis. The AODA diagnosis has some impact though much less than a mental health diagnosis.

Staff questioned whether the increased hospital utilization for those with a mental health diagnosis was the result of psychiatric hospitalizations. Only 4.3% of the inpatient days had a primary or secondary mental health discharge diagnosis and just 4.5% of nursing home days had a primary or secondary mental health diagnosis.

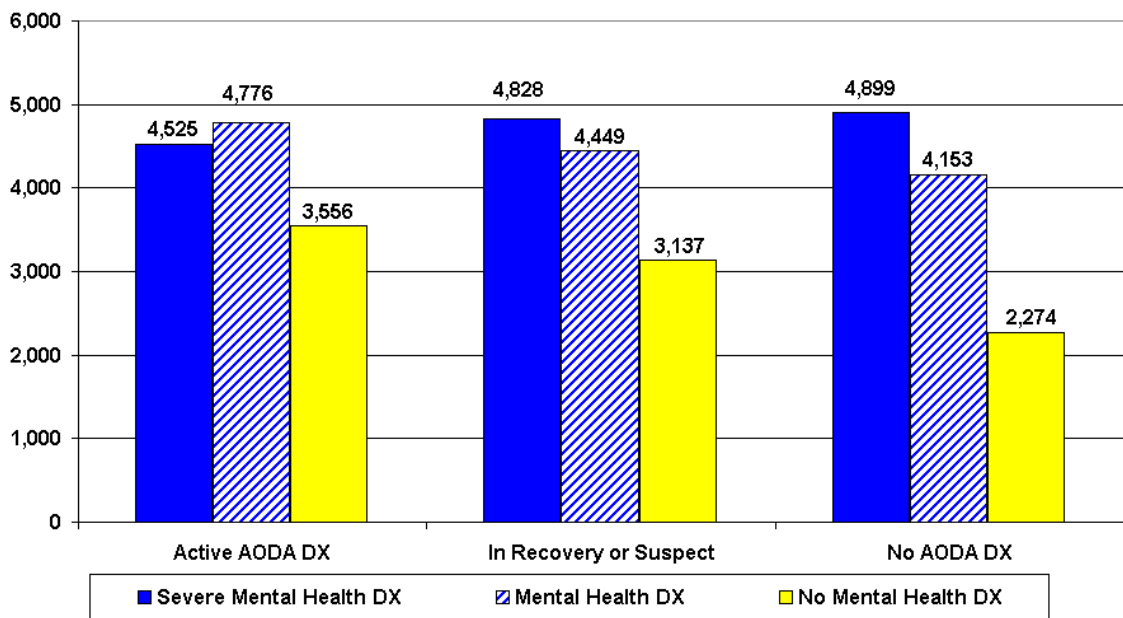
A new study, reported in the February 2004 Archives of Internal Medicine magazine, found that depression was an independent risk factor for subsequent cardiovascular death, particularly in those who had no prior history of cardiovascular disease. The lead researcher Sylvia Wassertheil-Smoller, a professor of medicine at Albert Einstein College of Medicine in New York, said it is unclear how depression might cause heart problems. She added that previous research has shown that stress hormones that might be activated in depression can constrict blood vessels and might lead to artery blockages.

Some other studies have also shown that depression and associated inactivity might cause blood levels of inflammatory proteins to rise, which also can increase heart disease risk.

**Chart 2: Hospital Days Per 1000 People Per Year,
Impact of AODA Upon Mental Health Diagnoses**



**Chart 3: Hospital Days Per 1000 People Per Year,
Impact of Mental Health Upon AODA Diagnoses**



As a result of the Medicare/Medicaid Integration Program Grant, Partnership staff received extensive training in working with people who have AODA issues. It would be worthwhile to develop and provide similar training for working with people who have a psychiatric condition.

In summary, there are distinctly different hospital utilization patterns between those with and without a mental health and AODA comorbidity. The utilization pattern is consistent. Charts 2 and 3 showed that the presence of any mental health diagnosis resulted in higher inpatient utilization irrespective of the AODA diagnosis. The AODA diagnosis has some impact though less than a mental health diagnosis. It is unknown whether a psychiatric condition leads people to self-medicate with alcohol or drugs or if the impact of alcohol or drug abuse enhances depression in people. Clinicians have hypothesized both of these alternatives.

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